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PARKING AND ACCESSORY APARTMENTS
A METRO TORONTO CASE STUDY

Ontario

Office of the Minister

Bureau du Ministre

Ministry of Housing | Ministère du Logement

Ministry of Municipal Affairs | Ministère des Affaires municipales

March 31, 1988

Ministers' Message for Intensification Reports

This series of publications deals with one of the innovative alternatives available to assist in relieving Ontario's current shortage of affordable rental housing.

That alternative is residential intensification - creating new housing within existing residential or commercial buildings or sites.

There is considerable potential in our existing building stock to provide new units for the increasing number of smaller households in our society.

We endorse these publications which will help municipalities develop opportunities for the creation of more affordable housing through intensification. The reports will encourage community groups, agencies and individuals who want to learn more about how residential intensification can be provided for in their communities. Finally, they will assist people who are considering ways of using existing buildings or developed lands for more housing.

Through intensification we can move closer to achieving our shared objective of meeting the housing needs of everyone in Ontario. Working together, we will meet that goal.

Sincerely,

Chaviva Hosek

Chaviva Hosek
Minister of Housing

John Eakins
Minister of Municipal Affairs

FOREWORD

Faced with a growing demand for affordable housing, Ontario is committed to encouraging creative approaches and community-based solutions to this vital issue.

One way in which the housing needs in Ontario can be met is by making better use of the existing resources in our communities. The process has been described as residential intensification. Examples of residential intensification include:

- various forms of sharing in existing residential units;
- creation of new, self-contained units in existing residential buildings;
- conversion of non-residential space to residential use; or
- residential infill on unused, vacant, under-utilized or under-developed lots.

In 1982, the Province, in co-operation with the Association of Municipalites of Ontario, commissioned a study to determine the potential for creating new housing through residential intensification and the conservation of existing housing stock.

The *Study of Residential Intensification and Rental Housing Conservation* has since formed the basis for provincial, as well as many municipal housing initiatives.

Opportunities for residential intensification, identified in the study, were based on demographics which showed that household size has been decreasing dramatically since 1951. At the same time, the number of households has been increasing substantially. On this basis we expect demand for dwellings to serve the needs of smaller non-traditional households to continue to grow.

The potential for creating new units in the existing building stock is considerable. More than half a million homes in Ontario could physically accommodate an extra self-contained dwelling within the existing structure without compromising current space standards.

Surveys in the United States and Canada show that between 12 and 15 per cent of homeowners would be interested in converting part of their homes – if they could. In the City of Toronto alone, as many as 5,000 units could be created at 148 existing apartment sites without violating present zoning standards.

Several factors limit the creation of additional units in the existing building stock. These factors can discourage the inexperienced small-scale builder and homeowners who typically produce these forms of housing.

The factors include:

- land use regulations that prohibit the proposed use, or include performance standards that inhibit conversions;
- community concerns about neighbourhood change;
- complex building and development approvals processes, combined with application fees that are more suited to large-scale development;
- problems in meeting Ontario Building Code requirements without incurring considerable expense;
- confusion about the rights and responsibilities of landlords.

The reports in this series are intended to assist individuals, municipalities, homeowner or ratepayer associations and community agencies in considering ways of accommodating housing needs in our neighbourhoods in the coming decades.

Municipalities, neighbourhoods and individuals are encouraged to consider the potential for creating new housing in the built environment. They should also look at ways of overcoming the factors which prevent this potential from being realized.

For more information on the content of these reports contact:

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PARKING AND ACCESSORY APARTMENTS

A METRO TORONTO CASE STUDY

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  - Ms. Pat Balint, Planning Technician, Planning and Programming Section

GLOSSARY OF TERMS

Accessory Apartment — A small self-contained living unit which is added to grade-related housing (e.g. single-family, semi-detached, row, duplex) without altering the family character of the house.

Bachelor Unit — A living unit which contains only one habitable room, plus self-contained kitchen facilities and a bathroom.

Bachelorette Unit — A living unit which contains only one habitable room, plus either self-contained cooking facilities or a private bathroom, but not both.

Converted Unit — An additional living unit created by adding to or altering an existing dwelling.

Deconversion — The altering of two or more converted units to reduce the number of living units to the original number.

De-intensification — The reduction in the number of living units in a dwelling.

Footprint — The ground floor area of a building in relation to the total lot size, usually expressed as a fraction or percentage.

Front Yard Parking — Parking space created in front of the front building line of the house (e.g., perpendicular or angled or parallel to the street line, accessed via an existing driveway or new curb cut. Can be located either on private or public property, or combination thereof).

Infill Development — The construction of a new residential structure on previously vacant or underutilized lots, in an area generally complete in its development.

Intensification — The increase in the number of available living units through the conversion of an existing living unit into two or more smaller units or the expansion of an existing residential building to add one or more additional living units or new infill development on vacant or underutilized parcels of land.

GLOSSARY OF TERMS
(Continued)

Degree of Intensification — The degree of intensification is calculated by comparing the current number of living units to the number estimated when the dwelling was originally built, assumed to be one for purposes of the study.

Living Unit — A room or suite of two or more rooms intended for the use of one or more persons as living accommodations.

Parking Space (Available) — All areas capable of accommodating a parked vehicle including garages, driveways and other paved or surface treated areas, however, excluding lawns, gardens, sidewalks and other areas intended for pedestrian use only. The available number of parking spaces on each lot was **estimated**, taking into account the availability of reasonable access to the parking space. Accordingly, this factor is somewhat subjective and may not reflect what is legally considered to be a parking space.

Tandem Parking — The parking of one vehicle directly behind another such that the first vehicle cannot gain access to the public thoroughfare without moving the second vehicle.

Non-Converted Building — A building containing the same number of living units as found when originally built.

PREFACE

PARKING, ACCESSORY APARTMENTS AND YOUR COMMUNITY

This preface gives readers some initial insight into the generally misunderstood issue of parking and housing intensification. It focuses on the most common form of intensification, "accessory apartments", those small, self-contained housing units which have been added within grade-related housing such as single family dwellings.

Concerns about parking and accessory apartments are found throughout most segments of a community. For example, when the City of Vancouver conducted a study on neighbourhood attitudes about these apartments in 1975, residents' concern about parking ranked as the biggest issue. In other communities, municipal engineers have raised questions about the potential for the apartments to yield additional cars, congesting streets with their parking needs and restricting snow clearance operations.*

In order to help communities understand and deal with the subject of parking, the Ministry of Housing has sponsored this report, *Parking and Housing Intensification: A Metro Toronto Case Study*. The purpose of the study was to find out whether concerns about parking problems are justified and how municipalities might approach the task of developing parking policies in connection with their housing intensification strategies.

The value of a Metro Toronto case study on parking and housing intensification

In the chilly, twilight hours of the spring of 1985, the team of researchers undertook their fact-finding study which included observation of parking habits in seven Metro Toronto neighbourhoods and interviews with the residents of 344 buildings. This was the first major attempt in Ontario to find out what was actually happening "on the street" with converted housing and parking.

The seven areas selected for the case study exemplify a range of neighbourhood types, from a suburban example in which only 6 percent of the single family housing had been converted, to a highly intensified neighbourhood in which 67 percent of housing had accessory apartments and/or boarding rooms. The seven areas were also subject to varying zoning regulations, with respect to the legality of accessory apartments and their parking provisions.

* Dillon Consulting Engineers & Planners, *Municipal Planning Guidelines for Residential Intensification – Technical Reports*, April, 1985, for the Ontario Ministry of Municipal Affairs and Housing.

* Lewinberg Consultants Limited, *In Your Neighbourhood*, August, 1987, for the Ontario Ministry of Housing.

Some of the case study areas can be seen as representative of the potential "worst case" for parking problems. This is due to their high degree of intensification and to the generous zoning regulations which permit many City of Toronto homeowners to add their first accessory apartment without any parking requirement.

Another value of the case study approach is that the in-depth research has provided statistics which have not been generally available on housing intensification. One of the more interesting findings, especially for those worried about absentee landlords in converted housing, is the high level of owner occupancy in this type of housing.

For all converted residential buildings in the study areas, the rate of owner occupancy averaged 71 percent. This finding has substantiated the economic argument that conversions are likely to be undertaken by owner occupants, because revenues would be insufficient for absentee landlords.*

Finally, as a result of the interviews and site inspections in this case study, there is a better understanding of parking problems in areas which have intensified, how residents actually perceive parking problems and the neighbourhood impacts of intensification.

Study findings and common concerns about accessory apartments

Within the case study areas, there was surprisingly little or no neighbourhood debate about parking. Residents did not report a loss of open space due to additional on-site parking needs and few incidences of illegal parking were observed. Other problems, such as excessive noise and traffic congestion, were mentioned only by a very few residents during interviews. Therefore, many of the commonly-held concerns about parking and accessory apartments were not realized.

The most frequently reported problem by residents was lack of on-street parking. In this respect, the study has demonstrated that accessory apartments do not necessarily result in **on-street** parking problems. In all but one of the case study areas, there was sufficient **off-street** parking capacity on an area-wide basis to accommodate the actual number of vehicles in the area. The study further concluded that there has been a market imbalance in the distribution of this off-street parking capacity.

* Lewinburg Consultants Limited, *In Your Neighbourhood*, December, 1987, for the Ontario Ministry of Housing.

Understanding the mechanics of parking

Parking can be seen as an equation, having a supply and a demand side. Parking problems arise when the demand for parking outstrips the available supply. Each side of the parking equation should be considered by municipalities in formulating policies for parking related to the creation of accessory apartments and other forms of housing intensification.

On the supply side of the parking equation are many parking options, both on- and off-site. **On-site** choices include the garage, driveway, tandem parking (one car parked behind the other in the driveway), front yard, and rear yard. Most municipalities will likely find that parking for accessory apartments can be accommodated on-site, when these possibilities are examined. **Off-site** components of parking supply include parking on the street and renting a space nearby, such as on a neighbour's lot or on a commercial or church parking lot.

The case study also considered the demand side of the parking equation. It examined variables which might influence parking needs. The following factors were found *not* to affect demand: the degree of intensification, external signs of conversion, age of the resident and whether the occupant was an owner or tenant.

Only one variable with respect to the character of the intensified units seemed to have any consistent relationship with parking demand: **the size of the accessory unit**. The case study found that parking needs rise with the size of the unit. Factors such as the socio-economic status of an area or transit accessibility seemed to have greater influence in determining parking demand in an area than the level of conversion.

How to approach the parking issue

Ontario municipalities have approached parking and housing intensification in a number of ways. Many allow accessory apartments in larger, older downtown housing. Typically, zoning by-laws have required one, on-site, parking space per unit. This is the case in the cities of London, St. Catharines, Thunder Bay and Barrie which report few parking problems with this arrangement.

On the other hand, parking problems, created to a great extent by students in converted housing, led the City of Guelph in 1986 to step up its zoning by-law enforcement on illegal apartments and establish new provisions for converted housing. This new policy allows converted housing by rezoning only, subject to meeting criteria such as separation distance, amenity areas and 1.5 on-site, parking spaces per unit. The new Guelph provisions do not allow front yard or tandem parking supply options.

Also in 1986, the Town of Penetanguishene overhauled its zoning with respect to accessory apartments, because of increasing demands for this type of housing and concerns about the illegal apartments in the Town. Unlike the City of Guelph, Penetanguishene's zoning by-law now permits one such apartment "as-of-right", with provisions for amenity areas, building code acceptability, etc. With respect to parking, one, on-site, parking space per unit is required, and apartment size is also limited to control parking demand and other neighbourhood impacts. Tandem parking is allowed as a parking option for accessory apartments.

Likely due to its excellent public transit system, the City of Toronto has been able to reduce parking requirements further to accommodate housing intensification. Accessory apartments are now permitted in over 80 percent of the residentially zoned properties in the City. As noted previously, the first apartment added by a homeowner has no on-site parking requirement. The Toronto zoning by-law also permits tandem and front yard parking under certain conditions.

It is not uncommon for municipalities to reduce parking standards in order to accommodate housing intensification. For example, the City of Kingston has recently dropped the requirement for parking in order to encourage residential use of the second floor of downtown commercial buildings.

Communities should consider their own unique characteristics and needs, as well as all the supply options for parking, in establishing their requirements for housing intensification. Generally, one, on-site parking space per unit should be satisfactory. However, where there are concerns about accommodating parking demand on-site, or in the case of the addition of multiple units, a more detailed study of specific neighbourhood demand and supply possibilities, similar to this case study, would be appropriate.

The case for legalization of accessory apartments

Because of the current restrictive nature of our single family neighbourhood zoning, most accessory apartments in Ontario have been built illegally. The Metro Toronto study of parking and housing intensification has demonstrated that accessory apartments, both legal and illegal, can be successfully camouflaged in existing single family housing, producing little or no neighbourhood debate about parking problems.

Given the likelihood that 10 to 20 percent of single family housing in urban municipalities has accessory apartments,* local governments can no longer ignore the existence of accessory units. Municipalities have the responsibility to regulate this form of housing, comparable to how they control other land uses in the best interests of the community. Zoning to permit this form of housing gives municipalities the opportunity to regulate parking in a reasonable way to accommodate demands in the neighbourhood. Zoning regulations must be simple, easy to administer and fair to *all* the parties involved: the owners, tenants, neighbours and the municipality.

It is always difficult to embark on new endeavors, especially revisions to zoning by-laws which are compounded by fears of changing property values and changing neighbourhood quality of life. However, properly controlled conversions do not affect property values negatively and they can help bring vitality into neighbourhoods with static or declining populations.**

This study has been undertaken to help communities better understand parking and housing intensification by looking at what is actually happening in real life on the streets in Metro Toronto. Readers are invited to discover more about this issue and the options available for parking in the report.

* Patrick H. Hare, "Carving up the American Dream", *APA Planning Journal*, Sept. 1981, p. 14.

** Lewinberg Consultants Limited, *In Your Neighbourhood*, August, 1987, for the Ontario Ministry of Housing.

1. INTRODUCTION

1.1 Background

The Ministry of Housing has been actively encouraging more efficient use of the existing housing stock and related infrastructure, through intensification. Housing intensification as addressed in this study includes converting an existing living unit to two or more more smaller units, expansion of an existing residential dwelling to add one or more additional units, building yard units, and infilling development on vacant or underutilized parcels of land. The primary focus of this study is on parking demands associated with the creation of accessory apartments.

The Ministry has sponsored a number of studies, and demonstration projects related to intensification including **In Your Neighbourhood** by Lewinberg Consultants Limited,[1] and the **Study of Residential Intensification and Rental Housing Conservation** by Klein & Sears et al.[2] In their evaluation of obstacles to intensification in single family neighbourhoods, Ministry staff have identified the fact that local municipalities, planners and residents often perceive parking problems to be an obstacle to intensification. Without empirical data however, it has been difficult to either dispute or confirm this perception.

Following a request for proposals, in December 1984, the Ministry of Municipal Affairs and Housing, as it was then known, authorized Marshall Macklin Monaghan Limited to undertake a **Study on the Potential Impact of Housing Intensification on Parking Need**.

1.2 Study Purpose

The purpose of the study was to examine whether the parking demand associated with intensification can or cannot be accommodated in areas that are intensifying, and, therefore, whether meeting the parking demand created by intensification hinders the potential of an area to intensify. Various factors such as the nature and location of the neighbourhood, size of unit, and socio-economic characteristics of the inhabitants were investigated to determine if the parking demand associated with intensification is dependent upon such factors. The study also provides municipalities with general guidelines that can be used to assess parking requirements associated with residential intensification.

1.3 Study Methodology

The study involved a number of research techniques including:

- the development and listing of hypotheses to be tested;

- literature search and review of relevant studies in both Canada and the United States;
- detailed door-to-door interviews; and,
- parking utilization surveys.

Seven case study areas were selected in Metropolitan Toronto for the interviews and surveys. These areas were selected on the basis of transit accessibility, location relative to the downtown core and relative house value. Within each area, a representative sample of streets was selected of approximately 50 buildings exhibiting similar characteristics. Figure 1 illustrates their locations. Details concerning the study process are outlined in Chapter 3.

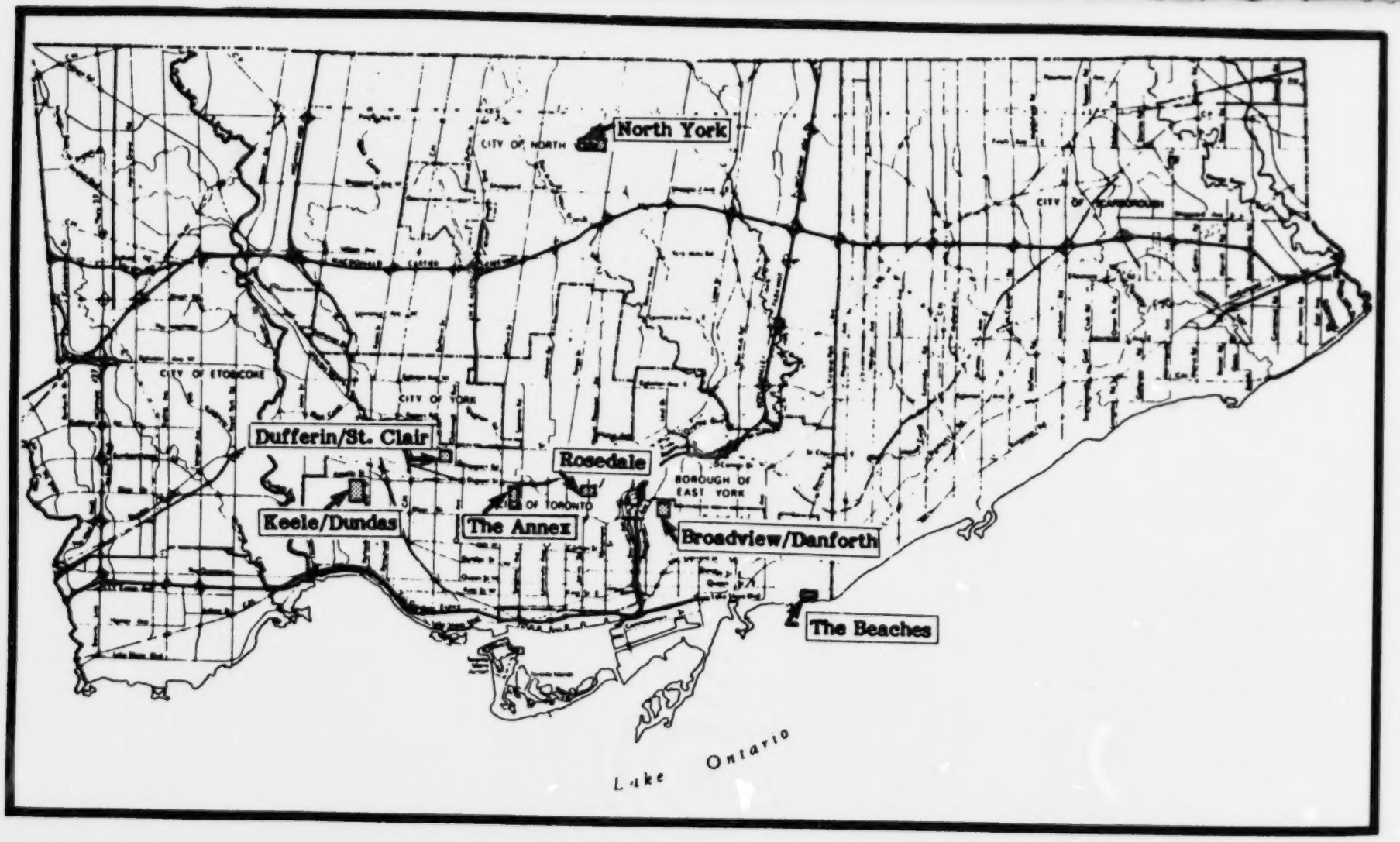
In total, **661** living units were surveyed, representing **354** buildings. Since 15 of the 661 units were vacant, information concerning vehicle ownership and other occupant data could not be collected for these units. On average, **34 percent** or **121** of the **354** buildings surveyed had undergone conversion.

The key findings and conclusions from the interviews and other sources of data are described in the Chapter which follows.

2. KEY FINDINGS AND CONCLUSIONS

The key findings and conclusions of the study are structured to address four areas of concern regarding residential intensification:

1. The degree and nature of intensification.
2. Problems related to intensification.
3. Parking requirements for converted units.
4. Parking options for converted units.



STUDY AREAS

FIG. 1

Potential Impact of Housing Intensification on Parking Need

Ministry of Municipal Affairs and Housing

2.1 The Degree and Nature of Intensification

2.1.1 Intensification Is Most Pronounced Closest to the Downtown Core and Least Evident in the Suburban Areas

All seven of the areas surveyed were found to contain some degree of intensification, that is the conversion of a residential building to provide for additional living units beyond those which the buildings had previously been constructed. Table 1 provides a summary of the key building-related information collected.

As shown, the study areas closest to downtown, the Annex and Rosedale have experienced the highest degree of conversion, 67 percent and 48 percent respectively, whereas the suburban example, North York, has experienced the lowest degree of conversion (6 percent only). The remaining four study areas vary between 24 and 35 percent.

The higher degree of intensification closer to downtown is likely the result of several factors, including the demand for small units close to downtown particularly for students and secondly the availability of a housing stock of suitable size and age for conversion.

In all areas surveyed, very little infill development has been observed (8 percent maximum). It was sometimes difficult to identify infill development in that the current residents of the house may not have been aware as to whether the house had been constructed on a previously vacant site (infill) or on a site where a building may have been previously situated and demolished (redevelopment).

TABLE 1

BUILDING INTENSIFICATION DATA

Study Area	No. of Buildings Surveyed	No. of Units Contained Therein	Building Classification Originally	Average No. of Units Added/ Building	Average No. of Units Added/ Converted Building	Degree of Intensification	Degree of Infill
Keele/Dundas	51	81* (78)	41–singles (80%) 10–semis (20%)	.59	1.66	35%	2%
Dufferin/St. Clair	51	82	50–singles (98%) 1–unclassified (2%)	.61	1.94	31%	None
Annex	51	173	28–singles (55%) 22–semis (43%) 1–duplex (2%)	2.39	3.59	67%	None
Rosedale	50	130* (119)	49–singles (98%) 1–semi (2%)	1.60	3.33	48%	2%
Broadview/Danforth	51	72	33–singles (65%) 16–semis (31%) 2–duplexes (4%)	.41	1.75	24%	None
Beaches	50	70* (69)	33–singles (65%) 10–semis (20%) 4–duplexes (8%) 3–townhouses (6%)	.40	1.43	28%	8%
North York	50	53	49–singles (98%) 1–duplex (2%)	.06	1.0	6%	4%
	354	661	283–singles (80%) 59–semis (17%) 8–duplexes (2%) 3–townhouses (1%) 1–unclassified	.87 (Average)	2.54 (Average)	34% (Average)	

* Number in brackets refers to the actual number of units surveyed based on occupancy. The difference between the two numbers accounts for the vacant units.

2.1.2 Legality Varies by Municipality Surveyed

The Majority of the City of Toronto Conversions Appears to be Legal with Respect to Use

Under the City of Toronto Zoning By-law the majority of the areas surveyed fall within the R2 Z2 or R2 Z3 zoning. Within these residential districts converted dwelling houses are permitted, provided that the structure was originally constructed as a private detached or semi-detached dwelling house, the house is at least five years old, and there are no substantial changes to the external appearance of the dwelling house as a one-family dwelling house.

In addition, there are details concerning any exterior alterations or additions to the dwelling house, as well as a floor area requirement indicating that the average floor area of the dwelling unit must not be less than 65 m^2 for the third or subsequent units. It is interesting to note that the floor area requirement only applies to converted dwelling houses containing more than two dwelling units. It should be noted that a converted dwelling unit does not require a parking space for the first additional unit added, although one parking space is required for the original dwelling unit as well as one parking space for each dwelling unit in excess of the first two dwelling units. Accordingly, a second unit can be readily added to an existing detached or semi-detached house in the City of Toronto with few requirements in most residential zones, provided that it meets other requirements.

The by-law also permits conversions to accommodate boarding and lodging rooms, with up to and including 6 boarding or lodging rooms per dwelling in an R2 or R3 district outside of the Central Area, and up to 12 in any R3 district within the Central Area, generally the downtown core. Again, the by-law specifies dwelling age, room size, and a number of other requirements which must be met. One parking space for each three boarding or lodging rooms must be provided, in excess of three rooms.

Based on the zoning provisions, it appears that the converted units which were surveyed in the City of Toronto meet legal requirements with respect to use, assuming that they meet the other requirements as outlined in the by-law. Without having access to the actual renovation applications, it is difficult to state with certainty that the converted units are all legal. Where units were not created through the usual application process, they may not be legal concerning other factors such as setback requirements, etc.

City of North York Conversions are Generally Illegal

With respect to the City of North York, where one of the study areas is located, the zoning by-law does not permit conversions for accessory apartments nor rooms and boarding rooms. Applications for conversions would likely necessitate both a rezoning and Official Plan amendment. However, a single family house is allowed to have two kitchens, as-of-right.

Based on the North York Zoning By-law provisions, it appears that North York conversions which were observed, are illegal.

2.1.3 For the Most Part the Housing Conversions are Well Camouflaged

Indeed, the City of Toronto Zoning By-law requires that there not be any substantial change in the external appearance of the dwelling house as a one-family dwelling house, when conversion takes place.

While some buildings which had major signs of conversion actually had very few units added to the dwelling, others with minor external signs of conversion, had a number of units added. Therefore, external signs of conversion are not an accurate indicator of the degree of intensification. Figures 2, 3 and 4 illustrate three dwellings with different degrees of intensification. As can be seen from the photos, there is no correlation between the degree of intensification and the degree of the external signs of conversion.

2.1.4 Many Downtown Conversions Are Rooms

In total **121** converted buildings were surveyed representing **307** living units ranging in size from a single room through to 4 + bedroom apartments, as illustrated in Table 2. By category, approximately one-half of the converted units surveyed were rooms, bachelorette or bachelor units, with the remaining half being one-bedroom apartments or larger.

Since 80 percent of the total buildings surveyed were single, detached dwellings, the majority of the converted dwellings (78 percent) also originally had been single-family detached dwellings. Forty-four (44) percent of the converted buildings surveyed had added only one unit each, with a further 23 percent adding two units each. Buildings which had converted into a large number of units were predominantly located in the Annex and Rosedale areas. Of the 116 rooms in all study areas, 90 rooms representing 78 percent of the total, were in the Annex or Rosedale areas.

Figure 2
Six additional units added to this building, yet no external signs of conversion exist.

Figure 3
Three additional units added to this building, yet minor external signs of conversion exist.

Figure 4
Additional units added to this building with relatively minor external signs of conversion existing.

TABLE 2

UNIT TYPES FOR BUILDINGS UNDERGOING CONVERSION

Area	Original Bldg. Type	No. of Units Added/Bldg.	No. of Bldgs. of this Type	No. of Units Added by Type							
				Room	Bachelorette	Bachelor	1-Bedroom	2-Bedroom	3-Bedroom	4-Bedroom	4+-Bedroom
Keele/Dundas	Single (Detached)	1	6	1			1	2	2		
		2	8	5			8	3			
		3	2	3			1	1	1		
	Semi	1	2	1				1			
Dufferin/St. Clair	Single (Detached)	1	9			1		6	1		1
		2	3		1		1	4			
		3	2	6							
		5	2	3			5	2			
Annex	Single (Detached)	1	4		1		1	2			
		2	2				1	2	1		
		3	4	6			2	3	1		
		4	2				6	2			
		5	2	4			1	4	1		
		6	1	4				2			
		7	2	14							
		10	1			8	1		1		
		13	2	14	6	4	2				
	Semi	1	4				2		1	1	
		2	6			1	8	3			
		3	4	8			3	1			
Rosedale*	Single (Converted)	1	6				4	1	1		
		2	7				5	7	2		
		3	4	9				2	1		
		4	2				5	3			
		8	1		5	2	1				
		9	2	18							
		13	1	13							
Broadview/Danforth	Single (Detached)	1	5	1			1	2	1		
		3	1				3				
		4	1	4							
		5	1	2		2	1				
	Semi	1	3				3				
	Duplex	1	1					1			
Beaches	Single (Detached)	1	6				4	2			
		6	1				6				
	Semi	1	5				2	2	1		
	Duplex	1	1						1		
		2	1				1		1		
North York	Single (Detached)	1	3				3				
			120*	116 (37.9%)	13 (4.2%)	18 (5.9%)	82 (26.8%)	58 (19.0%)	17 (5.6%)	1 (0.3%)	1 (0.3%)

* Information not available for 1 building, containing 1 unit.

TABLE 3

OWNER OCCUPANCY DATA

Study Area	No. of Converted Bldgs. Which are Owner Occupied	No. of Vehicles (Total) For All Converted Bldgs. With Owner Occupant	No. of Converted Bldgs. Without Owner Occupant	No. of Vehicles (Total) For All Converted Bldgs. Without Owner Occupant	Ave. No. of Vehicles/ Converted Bldg. With Owner Occupant	Ave. No. of Vehicles/ Converted Bldg. Without Owner Occupant
Keele/Dundas	13 (72%)	25	5 (28%)	13	1.92	2.60
Dufferin/St. Clair	12 (75%)	21	4 (25%)	10	1.75	2.50
Annex	20 (59%)	43	14 (41%)	22	2.15	1.57
Rosedale	19 (79%)	56	5 (21%)	17	2.95	3.40
Broadview/Danforth	8 (67%)	15	4 (33%)	5	1.88	1.25
Beaches	11 (79%)	32	3 (21%)	8	2.90	2.66
North York	3 (100%)	8	0 (0%)	0	2.66	0.00
	86 (71.1%)	200	35 (28.9%)	75	2.33	2.14

2.1.5 The Majority of Converted Buildings are Owner Occupied

Over two-thirds (71 percent) of the converted units surveyed have the owner of the building also occupying one of the units in that building, as noted in Table 3. No clear relationship appears to exist between the owner occupancy factor and vehicle ownership for each of the study areas, although on average, across all areas the owner-occupied buildings have a slightly higher vehicle ownership than the non-owner occupied units.

More importantly, the owner occupancy factor is notable in other respects. For example, one would normally expect that an owner-occupied converted dwelling would be better maintained than one with an absentee landlord. Similarly, potential problems related to noise, parking spillover and other perceived problems related to intensification, would presumably be less likely to occur in owner-occupied buildings.

2.1.6 Deconversions Are Also Occurring

While intensification is occurring in the study areas, deconversion was also observed in areas such as Broadview/Danforth. Houses which had originally been built as single family dwellings and which had in some point of time been divided into two or more units, are now being restored once again as single family houses.

This trend has been evidenced by the City over recent years. Research Bulletin 26 prepared by the City of Toronto Planning and Development Department (August 1986) noted that since 1976, 23,600 new dwelling units had been constructed, with 4,691 lost through demolition. Despite this, 8,975 dwelling units were lost from the housing stock of the City of Toronto. Deconversion is the primary factor behind these losses.

2.2 Problems Related to Intensification

2.2.1 Dichotomy Between Parking Problems Perceived and Parking Problems Which Exist

A dichotomy exists between the perceived parking problems resulting from residential intensification and those which are actually observed.

No Shortages of On-Site Spaces Are Evident on an Area-Wide Basis

A general perception exists that residential intensification creates parking and traffic congestion problems. In almost every study area surveyed, however, with the exception of one, there were more than enough spaces available on-site to accommodate the number of vehicles that actually existed in the areas. It should be stressed that this observation holds on an **area wide basis**. In some cases, parking spaces were not available on specific lots, but other nearby lots often had more than enough excess spaces available to accommodate the parking space demand associated with the deficient units. For instance, some dwellings which had intensified, could not meet the parking demand for on-site parking, but, another homeowner nearby would either not own a car, or have a car, but still have extra garage or driveway space available for use. Therefore, although space is available in most areas (even areas with a very high degree of intensification), residents appear to be reluctant to seek alternative methods of overcoming this deficiency and/or residents are reluctant to rent their excess parking spaces to other neighbours.

It should be noted that, in some cases, the excess available parking took the form of tandem parking, or parking in a garage currently being used for storage. Also, the cost related to on-street parking permits ($3/month) is so low that other off-site parking options are comparatively unattractive. Accordingly, these factors may account for the reluctance on the part of one or both parties concerned, to rent these spaces.

On-Street Parking Is Generally Not a Problem

Another dichotomy is that the residents of all the study areas surveyed, felt they had some degree of parking problems. The majority of parking problems noted related to "insufficient on-street" parking available. However, the data provided by the City of Toronto shows that on-street parking spaces and permits were still available for the majority of the streets surveyed.

Little Illegal Parking is Evident

Although it is noted that a lack of on-street and on-site parking is perceived to be a problem by a number of the survey respondents, a very low to non-existent incidence of illegal parking was observed. This fact holds true whether the areas had a high or low degree of intensification. Although some people perceived a parking problem because they felt there were not an adequate number of spaces available, very few residents noted that they were forced to park illegally. If, indeed, there was a shortage in the number of parking spaces available as compared to the number of vehicles in an area, it would be a reasonable assumption that people would be forced to park illegally (e.g., illegal frontyard parking).

TABLE 4

PARKING DEMAND, SUPPLY AND PROBLEMS (ALL BUILDINGS SURVEYED)

Area	No. of Vehicles /Unit	No. of Vehicles /Bldg.	Available On-Site Spaces /Vehicle	Available On-Site Spaces /Bldg.*	% of Bldgs. With Excess On-Site Parking /Vehicle	% of Bldgs. With Insufficient On-Site Parking /Vehicle	% of Respondents With Parking Problems	Most Frequent Problems
North York	1.47	1.56	3.01	4.70	92%	4%	8%	100% — Insufficient On-Street or Ticketing On-Street
Rosedale	1.00	2.38	1.97	4.70	76%	4%	13%	50% — Insufficient On-Street 31% — Other (e.g. no guest parking, too much ticketing on-street, etc.)
Dufferin/St. Clair	.96	1.55	2.52	3.90	82%	10%	15%	92% — Insufficient On-Street 8% — Other (laneway snow removal inadequate, ticketing on-street, etc.)
Beaches	1.30	1.82	1.45	2.64	56%	18%	55%	42% — Insufficient On-Street
Annex	.54	1.82	1.32	2.41	49%	35%	31%	81% — Insufficient On-Street 8% — Insufficient Guest Parking
Broadview/Danforth	.85	1.20	1.23	1.47	45%	29%	65%	87% — Insufficient On-Street
Keele/Dundas	.90	1.37	0.80	1.10	24%	57%	77%	83% — Insufficient On-Street 7% — Driveway Obstructed

* Estimates based on all available spaces including garage, tandem in driveways, frontyard, etc.

TABLE 5

FRONTYARD AND ON-STREET PARKING

Study Area	Degree of Intensification	No. of Licensed Frontyard & Driveway Widenings (from the City)	No. of Vehicles Using Frontyard Parking (from the questionnaire)	No. of On-Street Permits Issued (from the* City)	No. of Vehicles Using On-Street Parking (from the questionnaire)
Annex	67%	10	0	50	37
Rosedale	48%	3	3	Not Permitted	0
Keele/Dundas	35%	5	2	44	43
Dufferin/St. Clair	31%	0	1	18	11
Beaches	28%	0	0	26	20
Broadview/Danforth	24%	7	3	25	19
North York	6%	Not Permitted	1	Not Permitted	1

* Number of On-Street permits issued from the City for those buildings interviewed only.

However, the study found there to be low occurrence of illegal parking and sufficient space available on an area wide basis, either on-site, on-street or on a nearby site to accommodate the number of vehicles in each area surveyed. Table 4 shows the percentage of all buildings in each area that did, or did not, have enough parking spaces available on-site compared to the number of vehicles per building. This table emphasizes the fact that parking spaces are available in all areas studied, except Keele/Dundas, on a resident's private lot or a nearby neighbour's lot. The lack of available on-site parking spaces in the Keele/Dundas area is directly related to the large building footprint as compared to the lot size. Table 5 illustrates that illegal frontyard and on-street parking does not appear to be a problem in that more licensed frontyard spaces were available than vehicles indicated as using frontyard parking. Similarly more on-street permits have been issued than the number of vehicles indicated as using on-street parking.

It should be noted, however, that tandem parking, which is considered illegal in many municipalities, was observed during the surveys, but the precise number of incidences of tandem parking were not recorded. The City of Toronto Zoning By-law recognizes tandem parking as a legal form of parking for converted dwelling houses and boarding and lodging houses.

Few Other Problems

It is also of interest that an extremely low percentage of respondents in each study area noted other types of parking problems, (apart from insufficient on-street spaces available and ticketing). Previous studies have indicated that residents, in general, oppose residential intensification because of other perceived automobile related problems such as excessive noise, traffic congestion and a loss of aesthetics. During this study, however, very few residents surveyed identified these "other" parking related problems in the general discussions held. This suggests that the only potential problem related to residential intensification and parking is the physical availability of spaces. Again, this study has identified that other spaces are available on-street or on neighbouring lots. It was also noted but not documented, that space is available on parking lots such as church lots.

In the case of using private parking lots such as churches, schools and supermarkets, it appears that people are not aware of or are unwilling to use these unique parking alternatives. In all the study areas surveyed, there were few if any respondents noting that they park in a nearby private lot. Concerns related to cost (as compared to $3 per month for on-street parking), liability, maintenance and snow removal on the part of the owner of these private lots, may be reasons for this alternative not being pursued. Alternatively, the marketability of these lots may not yet be recognized by local residents as a legal parking option. Figure 5 illustrates an example of a supermarket lot that is located adjacent to one of the streets surveyed in this study. Such a facility could be used in the evenings and on Sundays to provide additional parking spaces in an area.

Figure 5
An example of alternative parking facilities that can be used by residents in an area to alleviate parking space availability problems – a local supermarket lot.

Contentious Neighbourhood Issue

Another dichotomy exists in that, although past related studies noted that neighbourhood and political debate with respect to residential intensification is often centred around perceived parking problems associated with intensification, there appeared to be little or no debate over this issue in the areas surveyed.

Also despite the fact that some residents in residentially intensified areas do not have sufficient on-site parking available on the lot where they live, they rarely pursue alternative parking solutions, such as renting a space on a neighbour's lot. Although people complain of parking problems and, hence, perceive residential intensification to be the cause of more parking related problems, they do not act upon their complaints. There appears to be a threshold level related to the degree of parking problems that one experiences, when the 'perceived problem' becomes, in fact, a daily reality to which they must react.

Figure 6 illustrates an example of a dwelling that has more than enough parking spaces available on-site to accommodate the number of vehicles for that dwelling. Yet, there is a "no parking" sign in the window of the house, suggesting that the residents do not wish to allow other residents to use their excess parking spaces.

Figure 6
Although parking spaces are available on nearby residential lots, the concept of lending or renting these excess spaces to neighbours does not yet appear to be a desirable action.

The question of legality also comes into play. In the City of Toronto the zoning by-law does provide for the rental of a private garage, however, the rental of a tandem parking space in a driveway is more nebulous. Tandem parking is recognized as being a legal "parking space" for a converted dwelling house or a converted dwelling and lodging house where the number of parking spaces is three or less. However, in the case of a non-converted dwelling, the by-law specifies that the parking space must be readily accessible at all times for the parking and removal of a motor vehicle, without the necessity of moving another motor vehicle.

Little Loss of Open Space

Contrary to the perceptions of several respondents from previous studies, a loss of open space is *not* considered a problem for parking related to residential intensification. Not one respondent in all the study areas noted a loss of open space as a "problem associated with intensification". Furthermore, there was a very low incidence of front or backyard parking on previously open space/yard areas in any of the study areas, even in the areas with the greatest degree of intensification, and on the lots where insufficient on-site parking existed. Where front or backyard parking did exist, the majority of the sites had been landscaped and, therefore, did not detract visually from the character of the surrounding area. Figures 7 and 8 illustrate examples of these frontyard parking spaces that were found in the study areas surveyed.

Figure 7
Examples of landscaped frontyard parking

Figure 8
Examples of landscaped frontyard parking

Examples of Landscaped Frontyard Parking

This suggests that open space is valued more highly than extra on-site parking facilities in residential areas that are intensifying. Residents prefer that tenants in their additional units park on-street, rather than pave over their existing open space areas to provide additional parking facilities on-site. The availability and low cost of on-street parking makes it an attractive alternative.

2.2.2 Nature of the Parking Problems in the Areas Studied

Parking problems in the areas studied tended to be two-fold:

- Inadequate use of the available off-street facilities, either on the same site or in a neighbouring location.

- Insufficient on-street parking (real and perceived).

As noted, in all areas with the exception of one, more than enough potential on-site parking is available for the number of residents with vehicles, in these areas. This parking may not be readily convenient (e.g., may necessitate moving cars as in the case of tandem parking), may require the removal or cleaning out of an old garage or may require the renting of parking space from a nearby neighbour.

The municipality could assist in overcoming this problem in a number of ways:

- By legalizing frontyard and tandem parking, recognizing these locations as valid parking spaces.

- By legalizing the rental of surplus, privately owned parking spaces and garages, for use by neighbours.

- By initiating a central registry for those individuals wishing to rent out surplus parking spaces and for those wishing to make use of these spaces.

The second problem, the shortage of on-street parking spaces, is not necessarily related to tenant parking requirements for intensified units. A number of the areas surveyed have general on-street parking problems, due to their proximity to downtown (e.g., Annex), to shopping opportunities (e.g., Broadview/Danforth) and other attractions such as the waterfront (e.g., the Beaches). Accordingly, the influx of visitors into these areas during the day compound the visitor parking requirements associated with the residential areas.

On-street permit parking is allowed in five of the seven areas studied, with the exception of Rosedale and North York. In those areas in which on-street permit parking is allowed, there were still more spaces available than the number of permits issued. For example in the Annex study area, 138 permits in total were issued (inclusive of the buildings which had not been surveyed), whereas 143 spaces were available in this same area. However, in all areas surveyed, shortages of on-street parking and the associated ticketing of vehicles were generally the most frequently cited parking problems. Shoppers, visitors and others to the area, compound these problems.

2.3 Parking Requirements For Converted Units

In an attempt to determine whether the parking requirements associated with intensification differ from those for residences which have not intensified, a number of physical and socio-economic factors were examined to assess whether they influence vehicle ownership. These are described below.

2.3.1 The Degree of Intensification Does Not Appear to Influence Vehicle Ownership

A comparison between the degree of intensification and the number of vehicles per building did not identify or provide for a clear-cut relationship. (Refer to Table 6.) Rosedale, which exhibited the highest average vehicle ownership (2.38 vehicles per building) on average was 48 percent intensified, whereas the Annex with 67 percent intensification, only exhibited 1.82 vehicles per building. This suggests that on an area-wide basis, the level of conversion in a neighbourhood is not the most significant factor influencing parking demand.

TABLE 6

INTENSIFICATION VS. VEHICLE OWNERSHIP

Study Area	Degree of Intensification	No. of Vehicles/ Building
Annex	67%	1.82
Rosedale	48%	2.38
Keele/Dundas	35%	1.37
Dufferin/St. Clair	31%	1.55
Beaches	28%	1.82
Broadview/Danforth	24%	1.20
North York	6%	1.56

2.3.2 Socio-Economic Factors As Well As Transit Accessibility Influence Vehicle Ownership

Typically one would expect areas which are well served by public transit to exhibit higher transit usage, hence have a reduced requirement to own an automobile on the part of the owner and tenant. Table 7 below indicates the average number of vehicles per occupied unit by area, ordered generally according to transit accessibility, with the Annex having the best transit accessibility and North York, the poorest.

TABLE 7

VEHICLE OWNERSHIP VERSUS TRANSIT ACCESSIBILITY

Transit Accessibility Ranking	No. of Vehicles/Occupied Unit
1. Annex	0.54
2. Rosedale	1.00
3. Broadview/Danforth	0.85
4. Keele/Dundas	0.90
5. Dufferin/St. Clair	0.96
6. Beaches	1.30
7. North York	1.47

Although this relationship generally holds true, the Rosedale study area exhibited a higher vehicle ownership than expected, suggesting that socio-economic factors such as income may also affect the propensity to own a vehicle.

2.3.3 External Signs of Conversion Do Not Appear to Influence Parking Demand

As noted, field observations did not reveal any relationship between major external signs of conversion such as extra doors, new stairwells, and so on, and the number of units located within the building. No relationship was observed between major external signs of conversion and parking demand.

2.3.4 Owner Occupancy Does Not Appear to Influence Vehicle Ownership

As indicated in Table 3 and outlined in Section 2.1.5, no clear-cut relationship exists between owner-occupancy and vehicle ownership.

2.3.5 Senior Citizens Have a Marginally Lower Vehicle Ownership Factor than the Average Household Surveyed

The age of the tenant was also examined in relation to vehicle ownership, to assess if respondents who are senior citizens (over the age of 65) have a lower parking requirement than those under 65. Table 8 below provides vehicle ownership data by study area for the two age groups. As noted the vehicle ownership for those over age 65 is just marginally lower than for those under age 65.

TABLE 8

AGE VERSUS VEHICLE OWNERSHIP

Study Area	No. of Vehicles/ Unit With Respondent Over Age 65	No. of Vehicles/ With Respondent Under Age 65
Keele/Dundas	.50	.94
Dufferin/St. Clair	.67	1.00
Annex	.25*	.54
Rosedale	1.20	.97
Broadview/Danforth	.75*	.85
Beaches	1.00*	1.34
North York	1.20	1.56
Average	**.89**	**.92**

*Sample size of 5 or less units.

2.3.6 Smaller Unit Types Have Fewer Autos Than Larger Unit Types

One would expect smaller living units such as rooms and bachelor apartments to generate fewer vehicles per unit than larger units such as two and three bedroom apartments, regardless of whether the unit has or has not been created through intensification (e.g., conversion). This is the case in this study, as witnessed by Table 9.

TABLE 9

VEHICLES BY UNIT TYPE

Study Area	Average No. of Vehicles/ Converted Unit	Average No. of Vehicle/Non-Converted Unit	Average No. of Vehicles/Unit Overall
Room	.18	—	.18
Bachelorette	.21	—	.21
Bachelor	.26	—	.26
1 Bedroom	.67	1.33	.69
2 Bedroom	.97	1.00	.98
3 Bedroom	1.46	1.33	1.37
4 Bedroom	1.46	1.36	1.38
4 + Bedroom	.80	1.53	1.47

2.3.7 No Discernible Relationship Could Be Established Related to Parking Required for Converted and Non-Converted Units of the Same Type

Due to the sample size, it is not always feasible to compare the vehicle ownership patterns of converted and non-converted units of the same type within the same study area. Table 10 provides a summary of the study findings in this regard. As shown, no discernible relationship could be established related to the impact of conversion on parking requirements for units of the same type.

2.4 Parking Options for Converted Units

Parking for new living units resulting from conversion can be provided in a number of ways including:

- On-site
- Off-site — neighbour's driveway or garage
  — other parking facility e.g. municipal lot, church lot, etc.
  — on-street

2.4.1 On-Site Parking is Usually the Preferred Option

The survey results indicate that given a choice, all respondents would prefer to park on their own site rather than on the street or at another off-site neighbouring location. This is not a surprising finding. Accordingly, when examining the potential for an area to intensify, the ability of a typical lot to accommodate additional on-site parking, should be considered first.

As indicated in Table 11, study areas such as North York and Rosedale were found to be capable of accommodating nearly five vehicles per lot, whereas in the Keele/Dundas area on average only one vehicle can be accommodated on each site. Relating this to the parking demand, this translates to 3.01 on-site spaces per vehicle in the North York case study, 1.97 in Rosedale and 0.8 spaces per vehicle in the Keele/Dundas case study area.

Various factors were examined to attempt to determine the ability of a lot to accommodate parking associated with intensification. Table 11 provides a summary of on-site parking information in relation to the degree of intensification and the building 'footprint'. The building 'footprint' reflects the ground floor area as compared to the total lot area, expressed as a percentage of the lot area. The table indicates generally that as the 'footprint' increases, fewer vehicles can be accommodated on the site. This is not a surprising finding in that as more ground floor area is covered by the building, less space is available for all other uses including landscaping, parking and sidewalks.

TABLE 10

AVERAGE PARKING DEMAND BY UNIT TYPE AND STUDY AREA

Study Area	* Con Room	Con Bachel-orette	Con Bachelor	Con 1-Bed-room	** Non-Con 1-Bed-room	Con 2-Bed-room	Non-Con 2-Bed-room	Con 3-Bed-room	Non-Con 3-Bed-room	Con 4-Bed-room	Non-Con 4-Bed-room	Con 4+-Bed-room	Non-Con 4+-Bed-room
Keele/Dundas	.14 (7)†	—	—	.82 (17)	2.0 (1)	1.27 (15)	—	.60 (5)	1.00 (12)	1.00 (1)	.91 (11)	—	.89 (9)
Dufferin/St. Clair	.33 (9)	0 (1)	0 (1)	.80 (10)	—	.68 (19)	—	1.25 (4)	1.17 (12)	1.00 (2)	1.29 (14)	0 (1)	1.78 (9)
Annex	.14 (56)	.25 (8)	.28 (14)	.41 (39)	—	.57 (23)	—	1.67 (9)	2.00 (1)	1.00 (5)	1.67 (3)	1.00 (3)	1.67 (12)
Rosedale	.21 (34)	.20 (5)	.50 (2)	.95 (19)	—	1.29 (21)	—	1.60 (10)	1.50 (2)	1.75 (4)	1.50 (6)	—	1.88 (16)
Broadview/Danforth	.22 (9)	—	0 (2)	.50 (10)	1.00 (2)	.90 (10)	.75 (4)	2.00 (2)	1.21 (29)	—	1.00 (1)	—	0 (3)
Beaches	—	—	—	.92 (13)	—	1.27 (11)	.88 (8)	1.67 (6)	1.67 (9)	1.50 (2)	1.53 (17)	1.00 (1)	1.50 (2)
North York	.33	—	2.00	1.20 (3)	1.00	1.54 (1)	4.00 (10)	1.57 (1)	— (28)	2.00 (1)	(7)		(2)
Average For All Study Areas Combined	.183	.21	.26	.67	1.33	.97	1.00	1.46	1.33	1.46	1.36	.80	1.53

* Con = Converted ** Non-con = Non-converted † (7) = Sample size of 7 units

Note: Use of caution is advised in comparing some figures due to inadequate sample size.

TABLE 11

ON-SITE PARKING VERSUS "FOOTPRINT" AND DEGREE OF INTENSIFICATION

Study Area	Available On-Site Parking Space/Bldg.	Ave. No. of Units Added/ Converted Bldg.	Footprint %	On-Site Spaces/ Vehicle	Vehicles /Bldg.	Degree of Intensification
North York	4.70	1.00	16.70	3.01	1.56	6%
Rosedale	4.70	3.33	14.99	1.97	2.38	48%
Dufferin/St. Clair	3.90	1.94	21.87	2.52	1.55	31%
Beaches	2.64	1.43	19.93	1.45	1.82	28%
Annex	2.41	3.59	26.70	1.32	1.82	67%
Broadview/Danforth	1.47	1.75	27.18	1.23	1.20	24%
Keele/Dundas	1.10	1.66	27.85	0.80	1.37	35%

To avoid oversimplification, it should be noted that other variables beyond the typical ratio of ground floor area to total lot area, must also be taken into consideration when assessing the ability of an area to accommodate parking associated with intensification. These variables include:

- the typical building position on a lot, which establishes the opportunities for front, side and rear yard parking.
- typical lot topography, in that steep slopes may limit parking potential.
- the type of driveway access typically provided (e.g., "mutual", which is one driveway shared between 2 buildings, versus "private" which is entirely on one property).
- the width of driveways (e.g., narrow driveway between two houses may restrict entry into the rear yard).
- provision of lane access which can provide for increased access to the lots.
- landscaping where trees or other features may restrict the potential for frontyard parking.

Figure 9 illustrates some guidelines for the evaluation of accessory apartments and parking demand, with Figure 10 providing further examples of the factors involved. It should be stressed that in order to assess the potential of a site to accommodate the demand for parking associated with intensification, all of these factors should be taken into consideration. Table 12 outlines the benefits of various on-site parking options.

Municipalities should review their zoning by-laws and local circumstances to determine which options are most appropriate for areas within their own municipality.

Figure 9
Guidelines for evaluation of residential intensification and parking demands

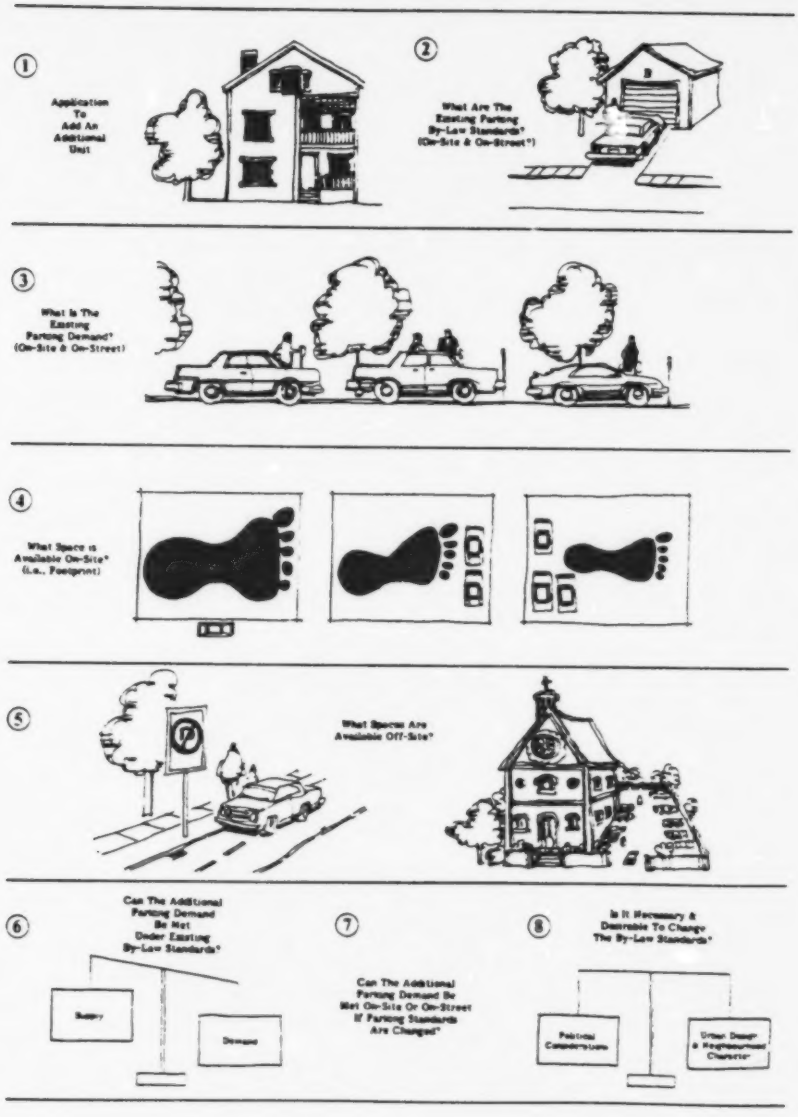

①
Application To Add An Additional Unit
②
What Are The Existing Parking By-Law Standards? (On-Site & On-Street?)
③
What Is The Existing Parking Demand? (On-Site & On-Street)
④
What Space is Available On-Site? (i.e., Footprint)
⑤
What Spaces Are Available Off-Site?
⑥
Can The Additional Parking Demand Be Met Under Existing By-Law Standards?
Supply
Demand
⑦
Can The Additional Parking Demand Be Met On-Site Or On-Street If Parking Standards Are Changed?
⑧
Is It Necessary & Desirable To Change The By-Law Standards?

Figure 10
SITE CHARACTERISTICS AND ON-SITE PARKING POTENTIAL
(Impact of site size, shape, building and driveway locations, site access and topography on potential parking spaces)

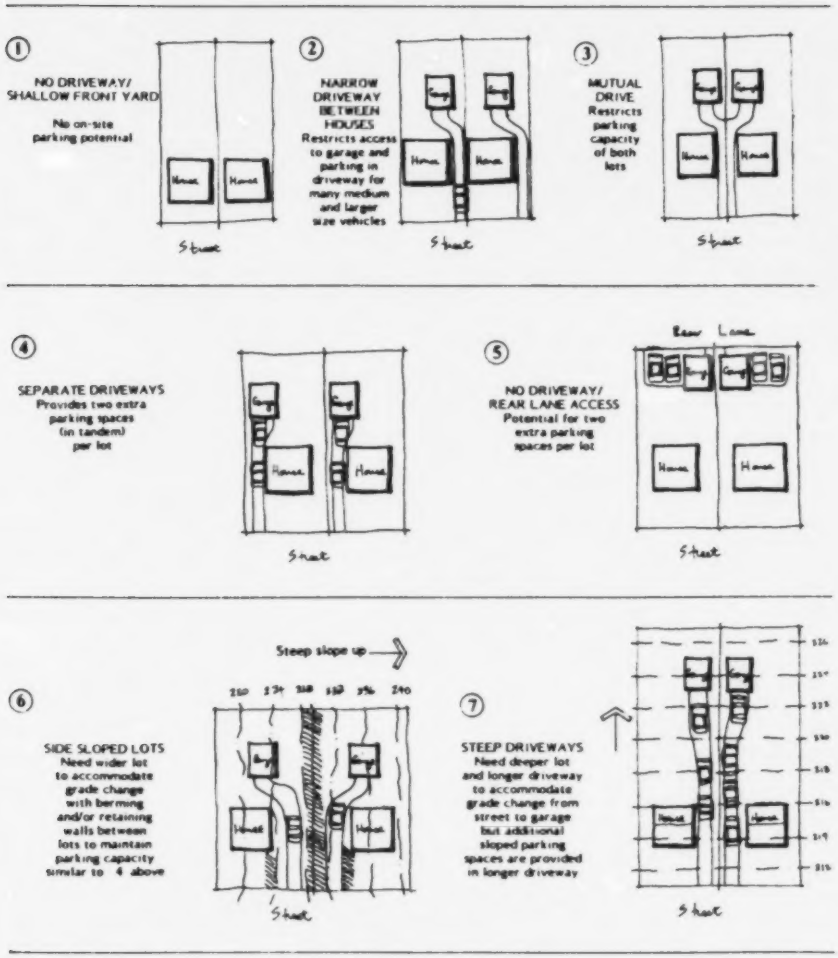

①
NO DRIVEWAY/ SHALLOW FRONT YARD
No on-site parking potential
②
NARROW DRIVEWAY BETWEEN HOUSES
Restricts access to garage and parking in driveway for many medium and larger size vehicles
③
MUTUAL DRIVE
Restricts parking capacity of both lots
④
SEPARATE DRIVEWAYS
Provides two extra parking spaces (in tandem) per lot
⑤
NO DRIVEWAY/ REAR LANE ACCESS
Potential for two extra parking spaces per lot
Rear Lane
⑥
SIDE SLOPED LOTS
Need wider lot to accommodate grade change with berming and/or retaining walls between lots to maintain parking capacity similar to 4 above
Steep slope up
⑦
STEEP DRIVEWAYS
Need deeper lot and longer driveway to accommodate grade change from street to garage but additional sloped parking spaces are provided in longer driveway
Street

TABLE 12

ON-SITE PARKING OPTIONS

Option	Advantages	Disadvantages
Driveway – Side-by-side	Can move any vehicle without being required to move other vehicles	Requires a sufficiently wide driveway to permit two or more vehicles to be parked adjacent to and parallel to one another
Driveway – Tandem	Makes use of an already available paved area	Requires one or more vehicles to be moved in order to move the vehicle which is located furthest away from the street. Situation applies regardless of whether it is a private driveway, requiring one or more people in the same building to move their vehicles, or whether it is a mutual (shared) driveway, requiring neighbours to move their vehicles
Rear Yard – Side Yard Driveway Access	Provides a viable parking option	Driveways between two houses are sometimes too narrow to permit access into the rear yard
Rear Yard – Lane Access	Necessitates little yard area for access as is the case with a side yard driveway access into the rear yard	Dependent on lane access with its own inherent concerns (e.g. snow removal in winter, security, etc.)

TABLE 12

(Continued)

Option	Advantages	Disadvantages
Garage or Carport – Side Driveway Access	Provides a sheltered parking space	Similar problems as tandem parking if garage is blocked by other parked vehicles
		Garages are sometimes used for other purposes (e.g., storage), therefore not available for the parking of vehicles
Garage – Lane Access	Provides a sheltered parking space	Garage may be used for other purposes, hence not available
		Problems inherent with lane access
Front Yard	With proper landscaping can be an attractive option	May involve curb cut which would reduce on-street parking

Municipalities should review their zoning by-laws and local circumstances to determine which options are most appropriate for areas within their own municipality.

Provided that the zoning by-law has been modified to allow for a variety of legitimate means of accommodating the parking demand, then the details can be reviewed at the building permit application stage, in the case where only one additional unit is being added. A checklist approach can be utilized to ensure that all of the parking requirements have been met before specific applications are approved.

2.4.2 Off-Site Can Also Provide a Viable Option

Where parking demand cannot be accommodated on-site, other viable off-site options may exist. These are described below:

On-Street

On-street permit parking greatly increases parking potential where availability of on-site parking is limited. On-street parking can be less convenient as an individual who is issued the permit is not guaranteed a specific space and indeed may find it difficult to locate a space, where the number of permits issued is close to or matches the available supply, or where temporary shortages of on-street parking spaces may occur, as a result of visitors, shoppers and others competing with residents for the available spaces. On-street parking can be complicated by snow removal during winter, as well.

On a Neighbour's Lot

By-law provisions which permit a resident to rent a vacant garage or a driveway which is not used by a neighbour, can assist in overcoming parking deficiencies on a lot basis, where in fact on an area basis, more than enough on-site parking spaces are available to meet the overall parking demand.

On Other Public or Private Lots

A variety of other options may also be available to residents who cannot accommodate the parking demand on the site. These include renting a parking space from a nearby church, supermarket or other use which normally does not experience an overnight parking demand or from the municipality in cases of public parking lots.

As noted, the study found there to be a reluctance to consider these other parking options, for reasons likely related to cost, liability, maintenance, distance and other factors.

2.5 Summary

Municipalities have a responsibility to regulate accessory units, comparable to how they control other land uses, in the best interests of the community. Most municipalities can readily regulate the demand for parking associated with intensification, in a manner comparable to that currently used, that is, zoning provisions for parking requirements related to the size or type of unit provided.

In the simplest case, the stage can be set for intensification through the provision of appropriate guidelines in the Official Plan and Zoning By-law, permitting the addition of one living unit of a specified maximum size, to an existing single family detached or semi-detached dwelling. Some municipalities have already gone part way in this direction by allowing "roomers" in certain residential zones.

The parking requirement associated with the addition of this one small unit could typically be the availability of one space, provided either on-site or off-site depending on the circumstances in the area. In the City of Toronto, this requirement has been waived for the first unit added to the original structure, based upon the availability of other parking either on-site or in the area. Compliance with parking requirements and any others which the municipality may wish to impose could typically be monitored at the building permit approval stage. As noted, tandem and frontyard parking would need to be recognized as being legal, to allow for this additional parking space on the site. Consideration should also be given to viable off-site options where it may not be possible to provide an additional parking space on the site. This may include an arrangement whereby a space can be rented from a neighbour or other land use not requiring evening and overnight parking.

In areas where the municipality may have some concerns as to whether the parking demand can be accommodated on the site or where consideration may be given to the provision of more than one accessory unit, it is recommended that the municipality give consideration to a more detailed study, comparable to the one undertaken herein. The study would determine the parking demand associated with converted units and would review and assess alternative methods of accommodating the parking demand associated with conversions in areas of high demand. Consideration may be given to reduced parking requirements for converted units, particularly those located within a short distance of a good public transit service (typically in larger municipalities). Again, off-site supply options such as the provision of neighbourhood parking facilities and leases with institutional or commercial uses having different peaking characteristics, should also be explored.

1) Lewinberg Consultants Ltd., *In Your Neighbourhood*, for the Ontario Ministry of Housing, August, 1987.

2) Klein & Sears, Environics Research Group, Clayton Research Associates, Lewinberg Consultants, and Walker, Poole and Milligan, *Study of Residential Intensification and Rental Housing Conservation*, Volumes 1 to 11, for the Ontario Ministry of Municipal Affairs and Housing and the Association of Municipalities of Ontario, March, 1983.

APPENDICES

APPENDIX A

STUDY PROCESS

APPENDIX A — STUDY PROCESS

A.1 Introduction

As part of this study several research techniques were used to ascertain whether:

- Residential intensification results in parking problems and as such hinders the potential for intensification, and,

- Reductions in parking requirements are indeed appropriate for converted units, as opposed to non-converted units.

As a starting point, a comprehensive listing of hypotheses to be tested was prepared. The listing was based on various hypotheses and questions raised in the following two studies prepared for the Ontario Ministry of Municipal Affairs and Housing:

- **In Your Neighbourhood**, by Lewinberg Consultants Ltd., September, 1984, reprinted August, 1987.

- **Study of Residential Intensification and Rental Housing Conservation**, by Klein & Sears, Environics Research Group, Clayton Research Associates, Lewinberg Consultants, and Walker, Poole and Milligan, March, 1983.

Data collection included a literature search and review of relevant studies done in both Canada and the United States. Discussions were also held with planning officials in various municipalities of Metropolitan Toronto. A listing of the studies reviewed and officials contacted is included in Appendix C. Where relevant, findings from this literature review have been compared with the findings derived in this study.

A key component of the data collection involved detailed parking utilization surveys and door-to-door interviews. As noted, seven (7) case study areas were selected in Metropolitan Toronto for these surveys.

Both the parking utilization and door-to-door surveys were administered during the winter months of February and March. People experience additional parking problems (as illustrated in Figure 11) of finding and clearing parking spaces during heavy snow cover periods. Therefore, the survey results revealed in this study reflect the "worst case scenario" that would exist for parking demand and parking space availability.

The study areas are described in detail in Chapter 4. A description of the two surveys undertaken in this area, is presented below:

A.2 Door-to-Door Interviews

A comprehensive door-to-door survey was administered to the residents in each study area. Information was collected with respect to both the building and all the units within the building. A copy of the questionnaire is provided in Volume 2 Appendices.

On average, 50 buildings in each study area were surveyed, for a total of **661 units** located in **354 buildings**. This sample size was deemed adequate to provide a **general** representation of the trends and patterns related to parking needs and residential intensification. For a more indepth analysis a larger sample size is recommended. The survey was undertaken during the late afternoons and early evenings in order to maximize the response rate. In each case, data for *all* units in each building surveyed, was collected. Call backs were made to those buildings where data was missing due to some residents not being at home during the initial interview.

For the most part, the survey went extremely well, with an excellent response rate. Although there were some language differences in some areas, the communication problems were overcome in this study by engaging a son, daughter, or resident relation to respond to the questionnaire if the dwelling owner had difficulty in understanding English.

A.3 Parking Utilization Surveys

To provide a basis for comparison with the door-to-door interview results, and to identify any further parking problems which may not have been identified as a result of the door-to-door survey, a parking utilization survey was also undertaken in each detailed survey area.

In each case, all visible vehicles parked on-site or on-street were noted on a half-hourly basis, between 4:00 and 8:00 P.M. for a weekday (Tuesday to Thursday). The location of each vehicle was recorded and vehicles entering or leaving a parking space were noted. Backyard and alley parking was also recorded. However, garage parking could only be identified where a vehicle was observed entering or leaving a garage during the study period.

A.4 Meetings

Meetings were held on a regular basis with the Steering Committee to inform the Committee of the study progress and findings, and to receive direction. The Committee consisted of representatives from the Provincial Ministry of Municipal Affairs and Housing, The City of Toronto and the Consultant.

In addition, meetings were held with other Consultants, also undertaking studies related to housing intensification on behalf of the Ministry. The purpose of these meetings was to exchange information which was relevant to each others' studies.

APPENDIX B

STUDY PROCESS

APPENDIX B — STUDY AREAS

Following a thorough examination and review of a variety of neighbourhoods in Metropolitan Toronto, seven case study areas were selected as previously illustrated in Figure 1. These included the following:

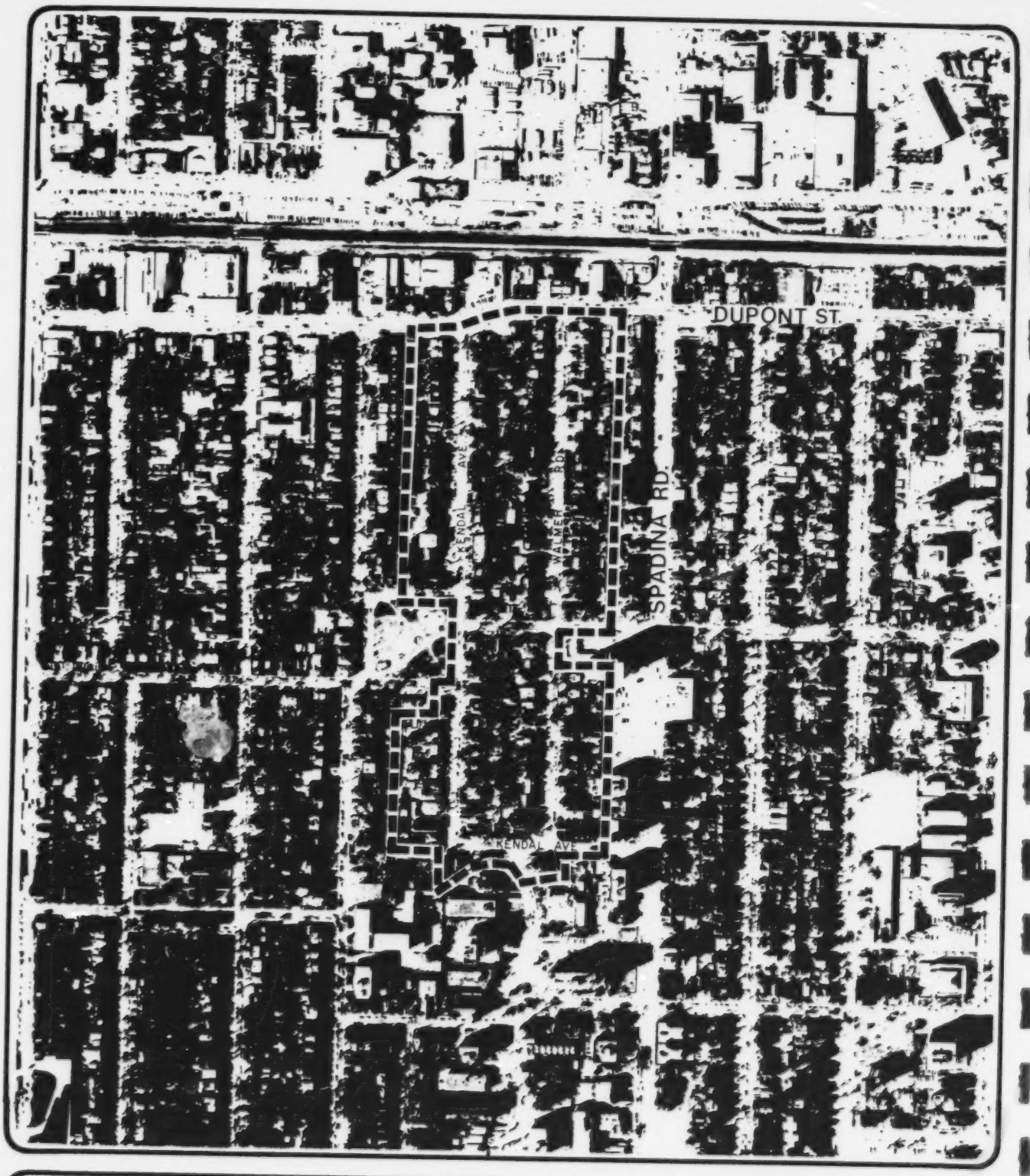
- Annex Area (Spadina Road at Dupont Street – South-west)
- Keele/Dundas Area (Keele Street at Annette Street – South-west)
- St. Clair/Dufferin Area (South-east)
- Broadview/Danforth Area (North-west)
- Beaches Area (Queen Street at Victoria Park Avenue – South-west)
- Roscdale Area (Mt. Pleasant Road at South Drive and Crescent Road)
- North York Area (Finch Avenue at Senlac Road – North-east)

Initially, the Steering Committee established a set of factors to be used in the selection of the seven study areas. From the outset, it was determined that each study area should be unique in terms of its physical and socio-economic characteristics. Detailed descriptions of the case study areas are presented below.

B.1 The Annex

The area known as the Annex is generally bounded by Dupont Street on the north, Avenue Road on the east, Bloor Street on the south and Bathurst Street on the west. The specific streets selected within this area for the survey, included Kendal Avenue and Walmer Road, as shown in Figure 11.

The Annex was selected as being representative of an older inner city neighbourhood with excellent transit accessibility. Traditionally, the area was characterized by large upper middle to high income single family residences, with the majority of the buildings built in the late 1800's and early 1900's. The residents in the case study area are located within one to two short blocks from the Spadina subway line, two to three blocks from the Bloor-Danforth line, and one to two blocks to several major north-south and east-west bus routes.



ANNEX

Potential Impact of Housing Intensification on Parking Need

Ministry of Municipal Affairs and Housing

Figure 11

Scale
1:5000

0 50 100 200

Marshall Macklin Monaghan Limited

The area is characterized by large, single-detached and semi-detached houses on fairly large lots. Despite the large house sizes, the area has the third highest lot coverage (26.7%) of all areas surveyed. The lots are approximately 150 feet deep with mutual driveways, and, in some cases, no vehicular access whatsoever to the rear yards. Approximately one-third of the residents in the buildings surveyed rely solely on on-street parking facilities for their parking needs. Figures 12 and 13 illustrate the character of housing in the Annex.

Figure 12

Figure 13

Due to the size of the houses and their proximity to the subway, the Central Business District and the University of Toronto, many of the houses have been converted to rooming houses, bachelors and other smaller types of units. The Annex has the highest intensification of all the areas surveyed, with 67 percent of the buildings surveyed having been converted.

The Annex has the lowest average vehicle ownership per unit (.54) of the seven areas studied. This may be due to the excellent transit accessibility combined with the predominance of small converted units in this area. It appears that the Annex attracts a higher proportion of residents who do not require large living quarters and do not own automobiles (e.g. university students).

This area also has the highest incidence of on-street parking permits issued. However, not all of the units that had been issued permits said that they actually parked on the street. Perhaps the residents have been experiencing problems in locating available on-street parking spaces and have looked to other sources for parking facilities. The parking utilization surveys indicated that virtually all on-street spaces were utilized with the on-street parking at capacity by evening. Approximately one-third of the residents surveyed indicated that they had parking problems of some form or another.

B.2 Keele/Dundas Area

The Keele/Dundas Area was selected as an example of a neighbourhood that is located between the core area and suburban areas, but, with good public transit accessibility. The area is located within a one to two block walking distance of the Bloor-Danforth subway line and is readily served by surface transit routes feeding this line.

The specific streets used for the surveys included Mavety Street, Medland Street, Medland Crescent, Hillsview Avenue and Aziel Street, as noted on Figure 14.

KEELE /DUNDAS

Figure 14

Potential Impact of Housing Intensification on Parking Need

Ministry of Municipal Affairs and Housing

Scale
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Marshall Macklin Monaghan Limited

Figure 15

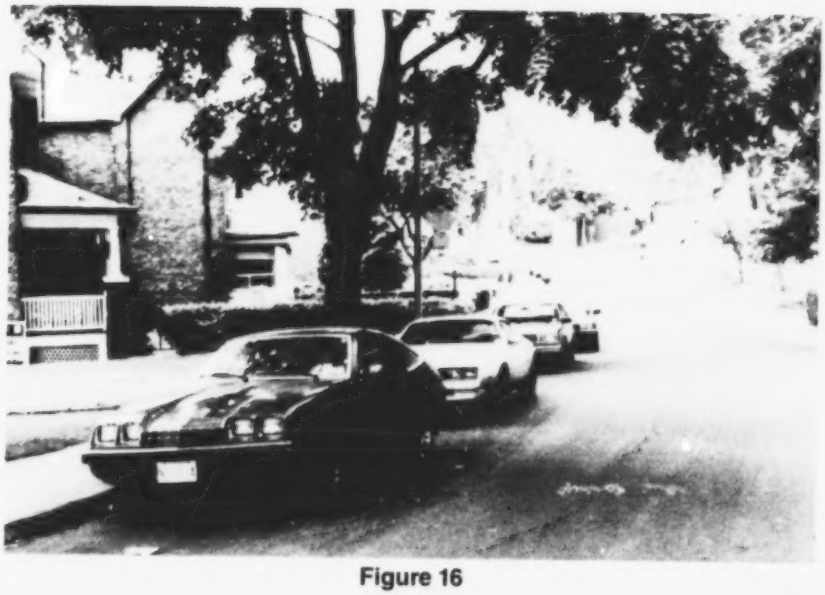

Figure 16

ST. CLAIR / DUFFERIN

Potential Impact of Housing Intensification on Parking Need

Ministry of Municipal Affairs and Housing

Figure 17

Scale
1 5000

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Marshall Macklin Monaghan Limited

The residential buildings are located very close together and are, generally small to medium sized, two storey detached and semi-detached homes, built between the First and Second World Wars. This area has the highest ground floor to lot size coverage (28%) of all the areas studied.

Although some houses had laneway access to rear yard garages, the majority of houses with on-site facilities rely on narrow, mutual driveways.

Most of the area is still oriented to single family units although some conversions to accommodate one or two additional units are common. On average, one-third (35%) of the buildings surveyed had added at least one additional unit. A few cases of gentrification were also noted, with houses being converted back to single family dwellings.

This area has the third lowest average vehicle ownership (.90 vehicles/unit) of all areas studied. However, due to the high percentage of lot coverage combined with the narrow mutual driveway access, the area as a whole has a serious shortage of parking spaces. Over half (57%) of the households surveyed had insufficient on-site parking as compared to the number of vehicles found in that house. This is a significantly higher percentage than found in any of the other areas surveyed. Only a very limited number (2%) of those surveyed rely on front or rear yard parking. As a result, on-street parking is at a premium, as reflected by the number of on-street parking permits issued and the parking utilization survey which indicated virtually all spaces filled by the end of the survey period (8:00 p.m.). Figures 15 and 16 illustrate the characteristics of this residential area.

B.3 Dufferin/St. Clair Area

For the most part, Dufferin/St. Clair is a stable area with good bus and streetcar transit accessibility. The area is located between the core area and other suburban areas. Some major external signs of renovation or gentrification are evident in the area.

The survey area, which included Northcliffe Boulevard, Lauder Avenue, Glenholme Avenue and Nigal Road, as illustrated in Figure 17, is characterized by large single-detached houses, (but, not as large as those in the Annex or Rosedale areas), on medium-sized lots. The buildings were generally built after World War I and before World War II. Figures 18 and 19 illustrate the character of this study area.

On average, approximately one-third (31%) of the buildings have added two or more units. The conversions primarily consist of rooms, and one and two bedroom apartments.

Figure 18

Figure 19

Over two-thirds (69%) of the houses surveyed had private driveway access to a rear yard garage. This area has the fourth highest average number of vehicles per unit (.96) of all areas studied. Parking, however, does not appear to be a serious problem. Only 15 percent of the respondents to the questionnaire identified any concerns related to parking. About 90 percent of the buildings surveyed have sufficient or surplus on-site parking spaces available. Next to the suburban case study area and Rosedale, this area has the greatest propensity to accommodate the parking demand on the site. Accordingly, although on-street parking is permitted, relatively few on-street parking permits have been issued.

B.4 Broadview/Danforth Area

The Broadview/Danforth Area was selected as a neighbourhood very close to the core area, with excellent transit accessibility. The survey area included Logan Avenue, Ferrier Avenue, Carlaw Avenue and Browning Avenue as shown on Figure 20. These streets are located within a short walk (1 to 2 blocks) of two subway stations on the Bloor-Danforth line.

The area is characterized by small, single and semi-detached houses on narrow lots. This area has the second highest ground floor to lot floor coverage (27%) of the seven areas studied. The majority of the buildings were built between World War I and World War II. Figures 21 and 22 illustrate the neighbourhood character of this area.

Two of the three streets studied have rear laneway access. The majority of the houses with laneway access also have garages, however, the garages are not necessarily being used for parking. Those without laneway access are dependent upon mutual driveways or on-street parking.

Due, possibly, to the relatively small size of the houses, only one-quarter (24%) have been converted, the majority of which were converted into rooms or one bedroom apartments. It is interesting to note that although many houses have been converted to smaller units, others have been converted back to single unit dwellings. Accordingly, the Broadview/Danforth area is an area in transition, with both intensification and gentrification occurring.

BROADVIEW/DANFORTH

Potential Impact of Housing Intensification on Parking Need

Ministry of Municipal Affairs and Housing

Figure 20

Scale
1 5000

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Marshall Macklin Monaghan Limited

Figure 21

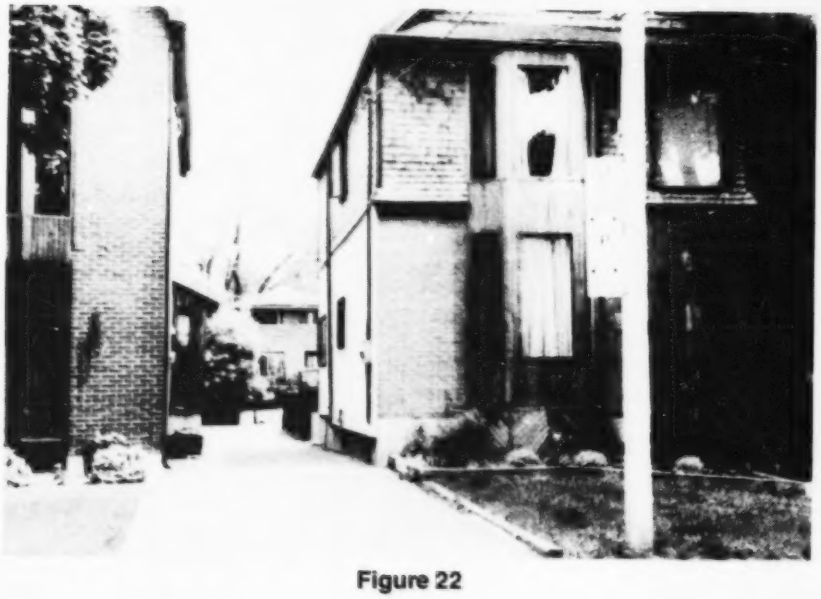
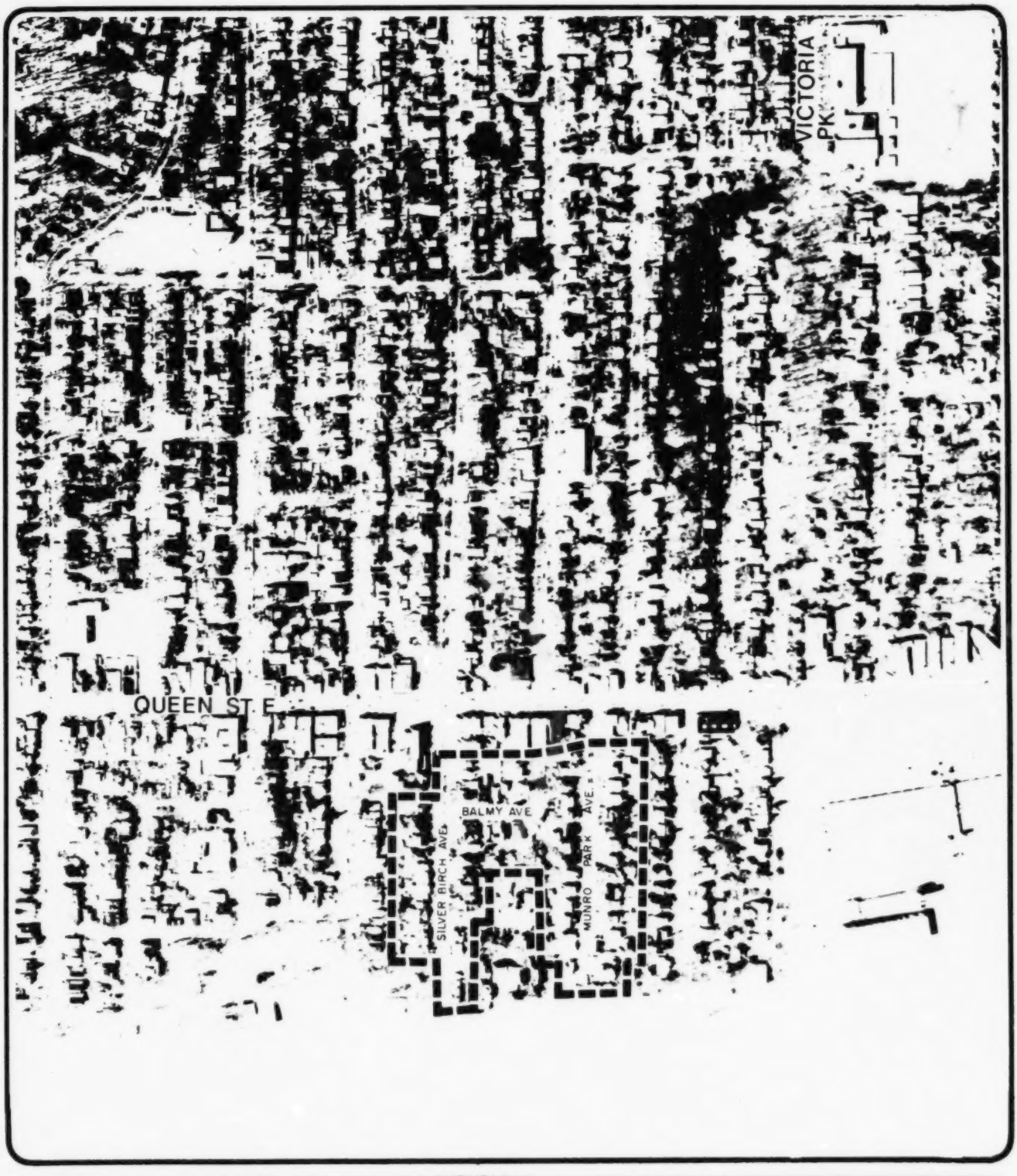


Figure 22



BEACHES

Potential Impact of Housing Intensification on Parking Need

Ministry of Municipal Affairs and Housing

Figure 23

Scale 1:5000

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Marshall Macklin Monaghan Limited

The Broadview/Danforth area has one of the lowest vehicle ownership rates (.85/unit) of all the areas surveyed, (the second lowest average). However, it is also an area exhibiting parking problems, with two-thirds (65%) of the residents noting problems, the majority of which relate to insufficient on-street parking availability. One-tenth (10%) are reliant on front or backyard parking, the highest percentage observed for all the areas surveyed. About one-third (29%) of the buildings surveyed did not have sufficient parking available on-site. On-street parking permits facilitate in accommodating this parking demand.

B.5 The Beaches

The Beaches was selected as an example of a neighbourhood with fair transit accessibility, being on a streetcar line, but located further from the core area, nearing the suburban areas of the City. The area was developed in the early 1900's, as a 'cottage' suburb to the City of Toronto, with mid to smaller sized houses.

The streets selected for the survey included Silver Birch Avenue, Balmy Avenue and Munro Park Avenue as shown on Figure 23. A marked difference exists in the general character of housing and the incidence of conversion, between Silver Birch Avenue/Balmy Avenue and Munro Park Avenue. Munro Park Avenue is characterized by few conversions, wide driveways and generally adequate on-site parking provisions. By contrast, Silver Birch Avenue and Balmy Avenue have a larger number of conversions and the houses are located on narrower lots. Figures 24 and 25 exemplify the different types of houses in this beach area.

Figure 24

Figure 25

On average, over one-quarter (28%) of the buildings surveyed have been converted, with the conversions consisting primarily of one and two-bedroom apartment units. The ground floor area to lot area coverage is 20 percent, the third lowest of the seven areas studied.

Next to the suburban case study area, the Beaches has the second highest vehicle ownership rate (1.3 vehicles per unit).

The majority of the houses surveyed have driveway access, although 6 percent depend on frontyard parking and 14 percent rely entirely on on-street parking. Yet, there are still more permits issued than there are people who claim to use the street for the parking of their vehicles.

Over half (55%) of those surveyed indicated that they have parking problems. The majority of these problems relate to the insufficiency of on-street parking. This area has the third highest proportion of respondents experiencing parking problems for all the areas surveyed. Based on the parking utiliziation survey, the on-street parking spaces are at or near capacity in the late evening on Silver Birch Avenue and Balmy Avenue.

ROSEDALE

Potential Impact of Housing Intensification on Parking Need

Ministry of Municipal Affairs and Housing

Figure 26

Scale
1 5000

0 50 100 200

Marshall Macklin Monaghan Limited

B.6 Rosedale

Rosedale was selected as a neighbourhood built between the mid to late 1800's and the early 1900's, with fairly good transit accessibility, and located very close to the downtown area. The survey area selected includes Crescent Road and South Drive, as illustrated in Figure 26. The streets are located on a bus route feeding the Rosedale subway station on the Yonge Street line.

The houses in Rosedale are primarily large, single detached buildings, located on deep lots. Originally this area was a very prestigious, upper income area. This area has the lowest ground floor to lot area coverage (15%) of the seven areas studied. Figures 27 and 28 illustrate the character of this older neighbourhood.

Figure 27

Although, for the most part, conversions are not evident from the street, nearly one-half (48%) of the houses surveyed have undergone intensification with the conversions spanning all unit types from rooms and bachelorettes through to one, two and three bedroom apartments. However, there is a higher than average percentage of rooms, bachelorette and bachelor units, relative to the other study areas.

The vehicle ownership (1.0 vehicle per unit) is the third highest of the seven study areas.

Figure 28

Parking is generally not a problem in Rosedale, with only 4% of the buildings surveyed having an insufficient number of parking spaces on the site to meet the parking demand at the site. On-street parking is not permitted. Very few of those residents interviewed indicated that they have parking problems. Those residents who did mention parking problems noted a range of problems (e.g. no guest parking, ticketing of on-street vehicles, obstruction of driveways, etc.).

B.7 North York

The Senlac/Finch Area of North York was selected as an example of a typical suburban neighbourhood, built after World War II and prior to the 1970's, with limited transit accessibility, that is located very far out from the City core. The streets surveyed included Horsham Avenue and Hounslow Avenue, both east of Senlac Road, as illustrated in Figure 29.

The area is characterized by predominantly single storey, detached houses with, for the most part, private driveways and garages. Due possibly to the size of the houses, newness of the area, and distance away from the Central Business District and entertainment and transit facilities, very few of the houses have been converted (6%). Figures 30 and 31 illustrate typical housing in the area.

Next to Rosedale, this area has the second lowest lot coverage (16.7%). North York, however, has the highest vehicle ownership levels per unit (1.47) of all the areas studied.

NORTH YORK

Potential Impact of Housing Intensification on Parking Need

Ministry of Municipal Affairs and Housing

Figure 29

Scale
1 5000

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Marshall Macklin Monaghan Limited

Figure 30

Figure 31

On-street parking is not permitted. However, due to the availability of on-site parking, on-street parking is generally found not to be required, except for visitors in some instances. Only 4 percent of the buildings surveyed did not have enough parking spaces available on the site. Very few (8%) of the respondents questioned identified any parking concerns. These related to insufficient on-street parking and ticketing.

APPENDIX C

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